The Informalities in the Disclosure

Pages 20-22 of the specification are objected to due to legibility problems. Specifically, the presence of trivalent oxygens, disappearance of an -O substituent in Scheme 4, and omission of text of Example 1 on page 22, are mentioned by the Examiner. Enclosed are replacement pages 20-22 which are believed to cure each of the aforementioned problems.

The Section 112, First Paragraph, Rejection

Claims 104-107 stand rejected under Section 112, first paragraph, on the basis of lack of written description and/or lack of enablement. While Applicants assert that the subject specification meets Section 112, first paragraph, requirements with respect to the subject matter of claims 104-107, they have, for purposes of clarifying the invention, replaced claims 104-107 with claims 110-113, rendering the rejection moot.

New claims 110-113 are adequately supported by the specification. Specifically, methods of synthesizing the compounds of claims 110-113 are found at page 15, line 11 to page 17, line 4. Methods of using the compounds are set forth at page 17, line 5 to page 18, line 2.

Closing Remarks

A Notice of Appeal was filed in the subject case on July 2, 2002. Submitted herewith is a Petition for Extension of Time for 2 months, Request for Continued Examination and a check for \$1,140. Also submitted herewith is an Information Disclosure Statement. It is believed that no other fees are due with this submission. If this is in error, please charge Deposit Account No. 19-5117.

Respectfully submitted,

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c: A. Wolter

B. Sauerbrei

Nucleoside attached to the support:

Alishman Harrist alm

Phosphoramidite:

Scheme 1

$$\begin{array}{c} B_1 \\ OR_3 \\ P) P - O \\ O \\ R_3 - O - P \\ R_2 \\ R_2 \\ R_3 - O - P \\ R_2 \\ R_2 \\ R_2 \\ R_3 - O - R_3 \\ R_2 \\ R_2 \\ R_3 - O - R_3 \\ R_2 \\ R_3 - O - R_3 \\ R_4 \\ R_5 - O - R_5 \\ R_5 - O - R_5 \\ R_5 - O - R_5 \\ R_6 - O - R_5 \\ R_7 - O - R_7 \\ R_8 - O - R_8 \\ R_9 - O - R_9 \\ R_9 - O -$$

Scheme 2

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2) Capping:

$$\begin{array}{c} B_1 & CH_2 \\ O & O \\ O & O \\ OR_3 & O-R_3 \end{array}$$

$$\begin{array}{c|c} B_1 & CH_2 & CH_2-O-Trityl \\ \hline O & O & O \\ \hline P & P-O & O \\ \hline OR_3 & O-R_3 \end{array}$$

$$\begin{array}{c} CH_2-O-C \\ \hline \\ O \\ \hline \\ OR_3 \end{array}$$
 this nucleoside can no longer be extended

Scheme 3

3) Oxidation:

Scheme 4

EXAMPLE 1

1 g of porous glass powder (CPG 00350C[®]; f; CPG Inc. USA) in 5 ml of a 10% solution of 3-glycidyloxypropyltrimethoxysilane

in acetonitrile, the mixture is left standing for 30 minutes at a temperature of 50°C and the support is then separated out by filtration, washed with acetonitrile (3X5 ml) and dried under vacuum.

The number of oxy groups is determined, after opening of the epoxide ring, by means of the reaction of dimethoxytrityl chloride in pyridine followed by absorption spectrophotometric measurement of the trityl cation in a mixture of perchloric acid and ethanol at 495 nm. A capacity of 50-100 micromol per 1 g of support is obtained.



